# CHAPTER 6 REFERENCES AND GLOSSARIES

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## LIST OF ACRONYMS

AGP acid-generating potential

AFDC Aid to families with dependent children

AIRFA American Indian Religions Freedom Act

**AMSL** above mean sea level

ANFO ammonium nitrate and fuel oil
ANP acid-neutralizing potential
APE area of potential effect

**AWHC** available water holding capacity

**AUM** animal unit month

**BIA** Bureau of Indian Affairs

**BLM** Bureau of Land Management

**B.P.** before present

**CEQ** Council on Environmental Quality

**CFB** circulating fluidized bed

**CFR** Code of Federal Regulations

CIL carbon-in-leach
CIP carbon-in-pulp

**CWA** Clean Water Act

**EA** Environmental Assessment

EIS Environmental Impact Statement

EMT emergency medical technician

**ESD** ecological site description

**FEMA** Federal Emergency Management Agency

**FHWA** Federal Highway Administration

FLPMA Federal Land Policy and Management Act

FY fiscal year

**HCN** hydrogen cyanide

**HDPE** high-density polyethylene

**IF** isolated finds

ISO Insurance Services Office

KOP key observation pointLCT Lahontan cutthroat trout

MCE maximum credible earthquake

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MSHA Mine Safety and Health Administration

NAAQS National Ambient Air Quality Standards

NAC Nevada Administrative Code

NAGPRA Native American Graves Protection and Repatriation Act

**NANP** net acid neutralization potential

NDCNR Nevada Department of Conservation and Natural Resources

NDEP Nevada Division of Environmental Protection

NDH Nevada Division of Health

NDOT Nevada Department of Transportation

NDOW Nevada Division of Wildlife

NDSP Nevada Division of State Parks

NDWR Nevada Division of Water Resources

**NENDA** Northeast Nevada Development Authority

NEPA National Environmental Policy Act
NHPA National Historic Preservation Act

NOAA National Oceanic and Atmospheric Administration

NOI Notice of Intent

**NPDES** national pollution discharge elimination system

NRHP National Register of Historic Places

NRS Nevada Revised Statutes

**ORV** off-road vehicle

OSHA Occupational Safety and Health Administration

PLS pure live seed

**POO** plan of operations

**PMP** probable maximum precipitation

**PSC** Public Service Commission

**PSD** prevention of significant deterioration

RA resource area

**RCRA** Resource Conservation and Recovery Act

**RMP** Resource Management Plan

ROD Record of Decision
RRD root restricting depth

**RUSLE** Revised Universal Soil Loss Equation

SARA Superfund Amendments and Reauthorization Act
SCORP Statewide Comprehensive Outdoor Recreation Plan

SCS Soil Conservation Service

SHPO State Historic Preservation Officer

**SPPC** Sierra Pacific Power Company

SRA State Recreation Area

SRMA special recreational management area

TCLP toxicity characteristic leaching procedure

TCP traditional cultural properties

TDF tailings disposal facility
TDS total dissolved solids

TPQ threshold planning quantity
TSP total suspended particulate

TSS total suspended solids

**USCOE** United States Army Corps of Engineers

**USC** United States Code

USDA United States Department of Agriculture
USDI United States Department of the Interior

**USDOT** United States Department of Transportation

**USEPA** United States Environmental Protection Agency

**USFS** United States Forest Service

**USFWS** United States Fish and Wildlife Service

VRM Visual resource management

VRM visual resource management
WAD weak acid dissociable

**WEG** wind erodibility group

WIC women with infants and children

WSA wilderness study area

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# **UNITS OF MEASURE**

**Bcy** bank cubic yards

**C** Celsius

cfs cubic feet per second

cy cubic yards (same as loose cubic yards)

dB decibel

dBA A-weighted decibel sound scale

**F** Fahrenheit

ft feet g gravity gal gallon

**gpm** gallons per minute

in inchkV kilovoltIb pound

lcy loose cubic yards

μg/m³ micrograms per cubic meter
 μmhos/cm micromhos per centimeter
 mg/kg milligrams per kilogram
 mg/L milligrams per liter
 mgpd million gallons per day

**MM** million

mph miles per hourppm parts per million

% percent

tpy tons per year

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### **GLOSSARY**

**Acre-feet.** The volume required to cover 1 acre to a depth of 1 foot, which is equivalent to 43,560 cubic feet.

**Acid Rock Drainage (ARD)**. Water with pH less than 5, elevated TDS, SO<sub>4</sub>, and trace metal concentrations that result from the oxidation of acid generating sulfide minerals with subsequent dissolution and transport of the oxidation products.

**Acid Generation Potential (AGP)**. The concentration of acid generating minerals in a rock or soil material, measured in tons of CaCO<sub>3</sub> equivalents per kiloton of rock.

**Acid Neutralization Potential (ANP).** The concentration of acid neutralizing minerals in a rock or soil material, measured in tons of CaCO<sub>3</sub> equivalents per kiloton of rock.

**Alluvial.** Pertaining to material or processes associated with transportation or deposition of soil and rock by flowing water (e.g., streams and rivers).

**Alluvium.** Soil and rock deposited by flowing water (e.g., streams and rivers); consists of unconsolidated deposits of sediment, such as silt, sand, and gravel.

**Alteration.** A geochemical process involving mineralogic and geochemical changes due to reaction with fluids moving through rock or soil under natural conditions, particularly in association with mineral deposits. Transformation of feldspar minerals to clay through chemical weathering is considered alteration.

Ambient. Surrounding, existing, background conditions.

**Anticline.** A fold in rock, where the interior of the fold is comprised of rocks that are older in age than the rocks on the exterior of the fold.

**Assay.** Qualitative or quantitative analysis of a substance (e.g., ore body).

**Basic Elements (visual).** The four major elements (form, line, color, and texture) which determine how the character of a landscape is perceived.

**Capillary Break.** A layer of specified material (usually cobble-sized) used to prevent capillary movements of fluids from one material to another.

**Cation Exchange Capacity**. The number of sites on a solid surface where reversible cation adsorption and desorption can occur.

**Contrast (visual).** The effect of a striking difference in form, line, color, or texture of the landscape features within the area being viewed.

**Critical (Crucial) Habitat.** Habitat that is present in minimum amounts and is a determining factor for population maintenance and growth.

**dBA.** The sound pressure levels in decibels measured with a frequency weighing network corresponding to the A-scale on a standard sound level meter. The A-scale tends to suppress lower frequencies (e.g., below 1,000 Hz).

**Decant.** To remove or pour off a liquid without disturbing associated sediment or solids.

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**Decibel (dB).** One-tenth of a Bel is a measure on a logarithmic scale which indicates the ratio between two sound powers. A ratio of 2 in power corresponds to a difference of 3 decibels between two sounds. The decibel is the basic unit of sound measure.

Dissolution. The process of dissolving

**Electrical Conductivity (or Specific Conductance).** The ability of a water or a soil-water paste to transmit electrical current, used to estimate ion concentration.

Endangered Species. Species in danger of extinction throughout all or a significant portion of its range.

**Eolian.** Soil and silt deposited by wind, such as loess.

**Ephemeral Stream.** A stream or portion of a stream which flows briefly in direct response to precipitation in the immediate vicinity, and whose channel is at all times above the water table.

**EPA Synthetic Precipitation Leachability Procedure (SPLP) – Method 1312.** A weak acid bottle roll extraction conducted to simulate metal release from mined material due to exposure to ambient conditions.

**Evapotranspiration (ET).** The portion of precipitation returned to the air through evaporation and transpiration.

**Floodplain.** The low and relatively flat areas adjacent to rivers and streams. A 100-year floodplain is that area subject to a 1 percent or greater chance of flooding in any given year.

Flux. Volume of groundwater per unit time that travels through a solid permeable medium, such as alluvium and bedrock.

**Forage.** Vegetation used for food by wildlife, particularly big game wildlife and domestic livestock.

Forbs. Any herbaceous plant other than a grass.

Fry. The young of fish.

**Game Species.** Animals commonly hunted for food or sport.

Hertz (Hz). The unit of frequency (i.e., sound) formerly designated as cps - cycles per second.

**Host Rock.** A rock body or wall rock enclosing mineralization.

**Hydraulic Conductivity (K).** A coefficient of proportionality describing the rate at which water can move through a permeable medium.

**Hydraulic Gradient.** For groundwater, the rate of change of total head per unit of distance of flow at a given point and in a given direction.

**Hydrograph**. A graph that shows some property of groundwater or surface water as a function of time.

**Hydrophytic Vegetation.** The total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present.

**Hydrostratigraphic Unit.** A formation, part of a formation, or group of formations in which there are similar hydrologic characteristics allowing for grouping into aquifers or confining layers.

**Intermittent Stream.** Stream that flows only part of the time or during part of the year; some segments of the stream may flow year-round.

**Irretrievable**. Typically used to describe renewable resources that are lost for a period of time such as timber production from land that has been converted to use for a ski area or other activity.

**Irreversible**. Usually used to describe use of nonrenewable resources such as extraction of minerals or removal of cultural resources where the resource is, for all intents and purposes, lost. This term is also applicable to loss of future options or alternatives based on present decisions.

**Isopleth.** A line, on a map or chart, drawn through points of equal size or abundance.

Key Observation Point (KOP). An observer position on a travel route used to determine visible area.

**Lithic Scatter.** A discrete grouping of flakes of stone created as a byproduct in the tool-making process. Often includes flakes used as tools as well as formal stone tools such as projectile points, knives, or scrapers.

Maximum Credible Earthquake. The largest conceivable earthquake that could occur in an area.

**Mesic.** Moist habitats associated with springs, seeps, and riparian areas.

**Mitigation.** Actions to avoid, minimize, reduce, eliminate, replace, or rectify the impact of a management practice.

Overburden. Sub-economic non-ore rock or soil associated with a mineral deposit.

**Oxidation.** A geochemical process involving chemical and mineralogic changes to rock or soil under chemical weathering conditions. Oxidation is typically associated with exposure of buried materials to atmospheric oxygen and water. The process occurs naturally, but is accelerated by mining activity.

**Peak Flow.** The greatest flow attained during melting of winter snowpack or during a large precipitation event.

**Perennial Stream.** A stream that flows throughout the year and from source to mouth.

Permeability. The capacity of porous rock, sediment, or soil to transmit a fluid.

**pH.** The negative log<sub>10</sub> of the hydrogen ion activity in solution; measure of acidity or alkalinity of a solution.

PM<sub>2.5</sub>/PM<sub>10</sub>. Particulate matter less than 2.5/10 microns in aerodynamic diameter.

**Probable Maximum Precipitation (PMP).** The greatest depth of precipitation for a given duration that is physically possible over a given storm area at a particular location at a certain time of year.

Raptor. A bird of prey (e.g., eagles, hawks, falcons, and owls).

Richter Magnitude. Logarithmic scale of earthquake intensity.

**Riparian.** Situated on or pertaining to the bank of a river, stream, or other body of water. Riparian is normally used to refer to plants of all types that grow along streams, rivers, or at spring and seep sites.

**Run-of-Mine Overburden.** Sub-economic rock mined from the phosphate deposit, which is and placed in surface dumps or as pit backfill

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Salinity. Measure of solute concentration, in grams per kilogram; "saltiness".

**Scoping**. Procedures by which agencies determine the extent of analysis necessary for a proposed action, (i.e., the range of actions, alternatives, and impacts to be addressed; identification of significant issues related to a proposed action; and the depth of environmental analysis, data, and task assignments needed).

Sediment Load. The amount of sediment (sand, silt, and fine particles) carried by a stream or river.

**Seepage Collection System.** A system of drains, ponds, and pumps to collect and return tailing impoundment and embankment seepage.

**Significant.** As used in NEPA, requires consideration of both context and intensity. Context means that the significance of an action must be analyzed in several contexts such as society as a whole, and the affected region, interests, and locality. Intensity refers to the severity of impacts (40 CFR 1508.27)

**Sodium Adsorption Ratio (SAR).** Ratio of dissolved sodium to calcium+magnesium in water; provides a prediction of cation exchange reaction potential.

**Sulfides.** That part of a lode or vein not yet oxidized by air or surface water and containing sulfide minerals.

**Sulfide Oxidation.** Chemical conversion of reduced sulfide compound to an oxidized sulfate compound, with associated release of iron and formation of secondary iron oxide mineralization.

**Storage Coefficient (S).** Volume of water that an aquifer releases from storage per unit surface area of aquifer per unit decline in the component of hydraulic head normal to the surface: S is dimensionless.

**Syncline.** A folded rock sequence where the interior of the fold is younger than the rock on the exterior.

**Threatened Species.** Any species of plant or animal which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

**Total Suspended Particulate (TSP).** Particulates less than 100 microns in diameter (Stokes equivalent diameter).

**Total Dissolved Solids (TDS).** Total amount of dissolved material, organic or inorganic, contained in a sample of water.

Total Suspended Solids (TSS). Undissolved particles suspended in liquid.

**Transmissivity (T).** The rate at which water will flow through a vertical strip of aquifer one foot wide and extending through the full saturated thickness, under a hydraulic gradient of 1.0.

**Ungulate.** A hoofed mammal.

**Visual Quality Objective (VQO).** A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape.

**Watershed.** Drainage basin for which surface water flows to a single point.

**Wetlands.** Areas inundated by surface water or groundwater with a frequency sufficient to support vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

**Wetland Functions.** Dynamic biological, chemical, and physical processes that characterize wetland ecosystems.

#### Wetland/Riparian Zone Vegetation Types.

**Streambar.** Above streamside type on stream deposits below ordinary high water mark (OHWM).

**Herbaceous Streambar.** In or immediately adjacent to streams at or below OHWM or within channel or adjacent to stream below OHWM; in low lying oxbows, meanders, and sloughs with standing water or high groundwater throughout or late into the growing season; older relatively, dry meanders and upland terraces.

**Wet Meadow.** Within perennial streams or artesian seeps and springs in broad floodplains; ponds formed in deeper oxbows, meanders, borrow pits, or other depressions.

**Salix Streambar.** Seasonally flooded levees and channels; recently exposed stream-laid deposits, moist to wet soils lining channel banks, newer oxbows and meanders; older stream-laid deposits and older oxbows and meanders and irrigation ditches.

Salix/Wet Meadow. Seasonally flooded, saturated, or semi-permanently flooded wetland.

**Salix/Mesic Meadow.** Banks adjacent to streams or in areas of high water table; moist, subirrigated low areas.

Salexi/Mesic Meadow. Intermittently or seasonally flooded channels and levees.

Mesic Meadow. Seasonally flooded wetland.

**Wetland Values.** Based on societal properties by which wetlands are determined to be useful, or impart public good.